

# Wetlands and prohibited activity status: too blunt an instrument?

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## 1 Introduction

To help curb the scale and rate of wetland loss and degradation in New Zealand, the level of legal protection for wetlands has been elevated through the National Policy Statement for Freshwater Management (NPS-FM, MfE, 2020a) and the National Environmental Standards for Freshwater (NES-FW, MfE 2020b). Wetland Delineation Protocols (WDP) have also been developed (MfE, 2020c) to help identify wetlands and their extent.

These instruments aim to ensure that there is no further loss of extent of natural inland wetlands, their values are protected, and their restoration is promoted, whilst giving effect to the fundamental concept of Te Mana o te Wai.

While we fully support these aims, our experience as practitioners suggests a level of discord between these expressed ecological outcomes and those likely to be achieved in practice.

This paper examines whether the blanket prohibition in the NES-FW of certain activities across all wetland types and values is justified from an ecological perspective.

We conclude that some aspects of the NES-FW and NPS-FM will generally improve wetland protection. However, in some instances, national policy can also create significant challenges and uncertainty, at times not defensible on ecological grounds and, as highlighted by others, may even generate perverse ecological outcomes (Minhinnick and Atkins, 2021).

We suggest that sound ecological outcomes could be achieved by changing the prohibited status applied to certain activities to non-complying activity status. This would enable the significance of an effect on wetland extent and values to be assessed on its merits, while ensuring the bar remains high for ecological effects assessments and management. We recommend a range of actions which should be developed to support this initiative. On balance, these measures would improve New Zealand's wetland protection in practice and reduce the potential for perverse outcomes.

## 2 The need for better wetland protection

It is clear that we need to better protect our wetlands and associated indigenous wetland biodiversity. New Zealand has now lost over 90 % of its wetlands — among the highest proportion of wetland loss in the world. This loss continues at a considerable rate with almost 5,400 ha of freshwater wetlands lost between 1996 – 2018 (Denyer, 2020).

Key drivers for the ongoing loss of wetlands include illegal clearance, outdated, weak or ambiguous planning rules that facilitate wetland loss, poor compliance with conditions, and poor enforcement of non-compliance (Denyer and Peters, 2020). The apparent rarity of prosecutions, and weak penalties for breaches may also facilitate and encourage poor public compliance with wetland rules (Denyer, 2020). Failure to identify wetlands has been problematic, particularly for smaller, exotic-dominated wetlands with ephemeral or seasonal hydroperiods (periods of standing water) that may not look like wetlands to the untrained eye.

Those wetlands that remain are generally in a state of decline due to effects of sedimentation, eutrophication, discharge contamination, weed invasion, drainage, livestock trampling and browsing, and the uncontrolled presence of introduced mammalian browsers and predators. A high proportion of wetland plants and animals that were once common are now classified as nationally or regionally threatened or uncommon.

### **3 Prohibited activity status and wetlands**

Under the NES-FW certain activities that affect ‘natural’ wetlands (as defined in the NES-FW) have a prohibited activity status (Regulation 53). These activities include any earthworks, or taking, use, damming, diversion or discharge of water within a natural wetland that results, or is likely to result, in complete or partial drainage of all or part of the wetland (unless the activity has another activity status prescribed under Regulations 38 to 51).

#### ***Meaning and use of prohibited activity status***

Prohibited activities are the most restrictive of the activity classes, meaning no application for resource consent may be made for the activity, and no consent may be granted for it. Use of this class must therefore be applied with care. Further, a National Environmental Standard (and the activity statuses used within it) must assist in achieving the Resource Management Act's (RMA) overall purpose of sustainable management of resources.

Good practice dictates that prohibited activity rules, for example, should be stated in clear and precisely absolute terms. The Quality Planning website advises that the activity or effect should be “easily identifiable and discrete (so as to avoid loopholes in interpretation or inadvertently including activities or effects that may otherwise be acceptable)”. Further:

*“Rules should be worded clearly enough to enable the plan user to judge the meaning and effect of the rule at face value without having to resort to using explanations or seeking advice from those who wrote it.”*

It follows that similar principles should apply to national standards prohibiting an activity. However, a prohibited activity status within an NES carries even more strength than in a typical plan, suggesting perhaps an even higher standard should be applied. This is because there is no opportunity for a person to apply for a plan change, such as in circumstances where the activity status is unduly strict or results in perverse outcomes. The only way it can be changed is if the regulations themselves change. Additional non-binding guidance on the documents (as is currently being prepared by the Ministry for the Environment) cannot change this activity status.

### **4 Can prohibited activity status be justified on ecological grounds?**

We consider that strict avoidance of those specified activities in ‘natural’ wetlands would be warranted in instances where the activity would result in high adverse ecological effects that cannot be demonstrably mitigated or offset (Maseyk and others, 2018; Quinn and others, in prep). However, a blanket prohibited activity status is simply too blunt an instrument to be justified on ecological grounds as described below. Rather, the appropriateness of an activity to proceed should require a case-by-case ecological assessment based on an evaluation of wetland ecological value (conservation importance) and the associated magnitude of adverse effects of an activity. Only then will ecological outcomes be achieved without a range of unintended, and potentially perverse, consequences.

We illustrate why the blanket prohibition on certain activities in wetlands is ecologically unjustified or inappropriate in many instances, on the grounds that:

- There is often uncertainty, particularly in highly modified landscapes, about what is or isn't a wetland (even when following the WDP), or a NES-FW ‘natural’ wetland.
- Whilst New Zealand's natural wetland extent and values require protection from further loss, not all wetlands have ecological values that warrant the use of the prohibited activity status.
- Some ‘non-natural’ wetlands, which fall outside of the NES-FW rules, have significantly higher values than ‘natural’ wetlands but are not subject to the same prohibited activity status.

- Not all effects on wetlands are unacceptable from an ecological perspective and equally, some of the effects from activities that are allowed by the other NES-FW provisions have a greater adverse effect than some of those that are prohibited.

It is also not a circumstance in which the choice is only between the use of a prohibited activity status or the loss of valuable wetlands. Case law has shown that the use of discretionary and non-complying activity statuses, supported by strong and clear objectives and policies, can still provide a framework that ensures the protection of key ecological features (*RJ Davidson v Marlborough District Council* [2018] NZCA 316). Further, if the NES-FW were to be amended so that a non-complying or discretionary activity status applied, there is no bar on local authorities from imposing more stringent status, or even a prohibited activity status, for high value wetlands within a region.

### ***Uncertainty around wetland definitions and therefore what is prohibited***

Determination of wetland presence and type through the NES-FW definitions (which we refer to throughout this paper as ‘natural’ and therefore captured by the NES-FW versus ‘non-natural’) has significant implications for whether an activity is subject to prohibited status. The definition of ‘natural wetland’ to which the NES-FW and prohibited activity status applies is broad and goes beyond what the average New Zealander may understand to be a ‘natural’ wetland. In many instances, uncertainty remains about exactly what ecosystems are subject to the prohibited activity status, since aspects of the technical wetland definitions and assessments are still open to interpretation (MfE, 2021). For example:

- There may be misalignment between the wetland vegetation, hydric soils and hydrology assessments used to determine the presence or delineation of a wetland, particularly in highly modified landscapes.
- It may be unclear whether a wetland should be defined as a ‘constructed’ wetland (‘non-natural’) or ‘induced’ wetland (‘natural’) because the historical information necessary to provide certainty is unattainable. The recently released exposure draft of the Essential Freshwater Interpretation Guidance: Wetlands Definition from the Ministry for the Environment (April 2021) (draft Interpretation Guidance) does not assist when applied at a technical level as wetland provenance is mixed, unclear or historic.
- It may be unclear whether a waterbody should be classified as a stream or wetland because characteristics of both habitat types are present, particularly in highly developed landscapes which are more likely to be subject to development pressures and are arguably most appropriate for development.

Despite the requirement for prohibited activity status to be ‘clear and in absolute terms’, the wetland definitions are nebulous, and the draft Interpretation Guidance was open for feedback at the time of writing (MfE, 2021).

In our opinion, even with further work, the interpretation guidance will never provide a one-stop-shop that provides sufficient certainty to address the inherent variability and complexity associated with wetland ecosystems, not least because wetlands are part of a transient continuum of aquatic and terrestrial systems. This is particularly so for modified wetland ecosystems.

### ***Not all ‘natural’ wetlands are threatened or have high ecological values***

The draft Interpretation Guidance (MfE, 2021) states at 2.1 that “remaining [wetlands] are rare and valuable ecosystems”. If this was true, we would be in full support of a prohibited activity status for any activities that have adverse ecological effects that cannot be mitigated.

In practice, while many wetlands do have high ecological values, some wetlands, particularly in highly modified landscapes, do not.

Larger indigenous-dominated natural wetlands are typically representative of their original state, are threatened and/or harbour threatened species, and have high diversity. Moreover, all larger natural wetlands, irrespective of whether they are indigenous dominated, are important for ecological functioning in the landscape, e.g. for flood control, biofiltration or carbon sequestration, buffering and connectivity. The ecological value of such wetlands is therefore typically assessed as high and impacts upon these wetlands should ideally be avoided.

Conversely, small, exotic-dominated, degraded wetlands in highly modified landscapes often have low or even negligible ecological values. This is because these types of wetlands:

- Are not representative of any original indigenous wetland ecosystem types,
- Are neither rare nor threatened, with many induced through land use modification, e.g. streams that have converted to gully wetlands induced through heavy sedimentation, or wetlands that have been induced through embankments or blocked culverts,
- Do not include any native species in some cases or have very low native diversity in others, and
- Do not contribute to ecological connectivity, buffering or function, noting that these values are positively related to size (and indigenous biodiversity value).

***Some non-natural wetlands not covered by NES provisions have significantly higher values than 'natural' wetlands***

Some 'non-natural' wetlands which fall outside of the 'natural wetland' definition to which the prohibited activity status applies have high ecological values. This could include, for example, intentionally constructed wetlands (such as for stormwater management) which are not subject to the prohibited activity status. These wetlands may, however, provide habitat for nationally threatened or at-risk wetland birds, native wetland vegetation and diverse native macroinvertebrate assemblages.

These values may warrant protection from an ecological standpoint more than those of a degraded 'natural wetland' with low ecological values. Yet the specified activities affecting 'non-natural' wetlands are not subject to prohibited status, whereas those affecting a degraded natural wetland are. This prohibited status is therefore difficult to justify and does not necessarily aid in the protection of 'rare and valuable' species.

***Not all prohibited activities on 'natural' wetlands warrant this status***

The magnitude of adverse effect is a measure of the extent or scale of the adverse effects of an activity and the degree of change that it will cause after measures to avoid, remedy or mitigate for adverse effects have been implemented. For example, under the Ecological Impact Assessment Guidelines developed by the Environment Institute of Australia and New Zealand (EIANZ 2018), the magnitude of an adverse effect is assessed in terms of:

- Spatial scale of the effect *per se*;
- Spatial scale of the effect proportional to the availability of that particular habitat in the immediate surrounds and wider landscape;
- Intensity of the effect;
- Duration, frequency and permanence of the effect; and
- Level of confidence in understanding the expected effect.

In our experience, not all adverse ecological effects generated by the complete or partial drainage of a wetland (as prohibited under the NES-FW) are high because either the wetland value is low or the

magnitude of adverse effect is temporary, or small in scale, intensity or duration. In fact, some effects will be low or very low, for example:

- A project may result in the total and permanent drainage of a small wetland exclusively dominated by an invasive weed species (excluding improved pasture). Despite the magnitude of adverse effects on that wetland being high, the overall level of adverse ecological effect could conceivably be low because the values are low.
- A project may require a small volume of temporary earthworks (e.g. 10 m<sup>2</sup>) within a large, high value wetland (10 ha) with the earthworks footprint comprising a negligible impact by proportion of the wetland. Importantly, this effect could readily be mitigated at the point of impact, through hydrological reinstatement, erosion and sediment control measures, and native revegetation within the earthworks footprint once complete.

Additionally, some of the non-prohibited activities could have a relatively greater magnitude of adverse ecological effect than the prohibited activity of 'partial drainage' (which in itself is not defined). For example, wetland vegetation clearance, which is a non-complying activity, may have greater adverse ecological effects if undertaken in a high value wetland than effects generated by complete or partial drainage of a low value wetland.

## **5 Prohibited activity status: the potential for perverse outcomes**

While the assignment of prohibited status for certain activities affecting wetlands may seem apt in theory, it is likely to generate a number of unintended/perverse ecological outcomes in practice.

Unintended/perverse outcomes centre on:

- Incentivising applicants to submit proposals that on balance, generate higher adverse effects on non-wetland ecological values in an attempt to avoid what would be 'less than minor' effects on wetlands.
- Incentivising illegal earthworks, drainage or discharge activities.
- Removing opportunities to restore other systems where wetlands may be present only due to poor land use practice.
- Reducing opportunities to achieve good ecological outcomes for wetland extent and values.
- Nature's response to absolute protection policy.

### ***Project footprints have a higher overall adverse effect on ecological values***

Of notable concern are the perverse outcomes that occur when applicants elect to adversely affect other ecosystem types of higher value but lesser protection status in order to avoid potential effects on wetlands of lower value. For example, to avoid a 16 m<sup>2</sup> lower value wetland, an applicant may need to clear a much larger extent of indigenous-dominated forest or permanent stream habitat that is not subject to prohibited activity status. The direction of other policy documents (for example the National Policy Statement on Urban Development) to provide for housing, encourages development. Ecological values exist in some form in most developable areas, so to protect one ecosystem type wholly above all others, only directs degradation to other, perhaps equally threatened, systems. On the whole this seems to be a poorer outcome, but it is incentivised by the policy framework.

The authors have many recent examples of where infrastructure or development layouts have avoided degraded exotic wetlands at the expense of other ecosystem types of higher value where the planning status is more permissible for the latter ecosystem types, or at least allows application of an effects-based values judgement.

Rural development sites, in particular, often support a range of wetland types. Forcing protection based on a policy requirement can result in adjoining areas of 'non-natural' wetland being impacted

and a much higher overall impact than if a values-based judgement was able to be applied equally across ecosystem types.

### ***Would-be applicants driven to illegal clearance***

Unconsented clearance of wetlands is already a key agent in their decline (Denyer and Peters, 2020). Without the ability to include offsetting/compensation measures in a consent application, potential applicants may consider the only viable option to proceed with a project is to illegally clear wetlands. These perverse outcomes are especially likely when the wetland is small and the loss cannot be detected on aerial imagery. Such illegal activities are rarely subject to enforcement action and, if they are, penalties are small. Notably, of the 79 instances of wetland clearance recently investigated by Denyer and Peters (2020), none were authorised via consent, and none had been investigated by councils or resulted in prosecutions.

### ***Removes opportunities to restore other ecosystems***

The permitted activity criteria allow for restoration of wetlands, but do not allow for the modification of wetlands to restore other ecosystems or to provide for other indigenous biodiversity values. For example, an undersized culvert may have resulted in the creation of an induced wetland within an otherwise natural stream system. Removal of the culvert would enable restoration of the natural stream channel and provide for fish passage (also required under the NPS-FM). However, earthworks would be required to facilitate the culvert removal which would also result in the 'partial or total' drainage of the induced wetland, and therefore would be prohibited.

### ***Reduced opportunities to achieve good ecological outcomes***

As recognised in the proposed National Policy Statement on Indigenous Biodiversity (NPS-IB), wetland protection is not enough to halt the decline in wetland extent or biodiversity. Indeed, most wetlands are in a state of decline and will continue to degrade without active intervention in the form of habitat restoration or enhancement. Lack of incentives and financial means for private landowners with degraded wetland habitats on their properties means restoration of these wetlands is unlikely.

While wetland loss should still be an absolute last resort, good ecological outcomes can (and we do stress the word 'can') be achieved to achieve increased biodiversity values for lower quality wetlands through a consenting pathway.

For example, in exchange for the loss of 0.1 ha of exotic wetland with low indigenous biodiversity values, an applicant may propose a net gain outcome involving several management measures. This effects management package could involve creation of a 1 ha wetland through inducement, and enhancement of 10 ha of existing degraded exotic-dominated wetlands through stock exclusion, long-term weed control, native enrichment planting and the provision of native wetland margin buffers. The type and scale of this hypothetical effects management package is not dissimilar (in relative terms) to that proposed for several applications in which we have recently been involved prior to the NPS-FM and NES-FW coming into effect. We do note that this is not an 'across the board approach' and does require the collective efforts of all developers, ecologists and planners to ensure that these benefits can be realised.

Enabling applications to be assessed on their merits through the effects management hierarchy could result in a higher proportion of those degraded wetlands in private landownership being enhanced. Notably, a higher proportion of New Zealand projects are centred on achieving net gain ecological outcomes, including for wetlands, and these outcomes will be further incentivised through the NPS-IB. Subpart 3 of the NPS-FM provides the anticipated approach to the effects management hierarchy and is, in our opinion, a very sophisticated process with clear direction.

Interestingly, this hierarchy is effectively set aside by a prohibited activity status, although we recognise that it will apply to other activities.

### ***Nature may not respect an absolute protection policy***

Absolute prevention of loss through policy declaration is admirable; however, this often ignores ecological realities. In our experience, most of the issues arising from the NPS-FM relate to its application in circumstances where landscapes are very degraded and where most qualifying wetlands have appeared since European occupation and the application of intensive agricultural land uses.

Once wetlands are assessed and protected, the NES-FW envisages that a monitoring plan will be developed for their long-term preservation (NPS-FM Clause 3.23(6)). Many rural wetlands are only sustained through poor ecological land use practices, including stock access to watercourses, undersized culverts and prevention of woody vegetation establishing in and around wetlands. Removal of stock, active native tree planting, or passive reversion to a more 'natural' state over time, all carry a high risk that in time a 'natural inland wetland' will be lost through natural conversion to a clearly defined stream bordered by terrestrial riparian vegetation.

We wonder if this fulfils the intent of the NPS-FM to halt the decline of wetland loss in New Zealand?

Even if active management could be prescribed to prevent natural succession, how will this impact on wider environmental initiatives (for example, a desire to plant shade-trees along upper catchment streams, many of which now support NPS-FM qualifying 'natural inland wetland' margins?). If we must identify and protect wetlands down to a size of 3 m in diameter (MfE 2021), will Councils allocate sufficient resources to maintain postage stamp-sized wetlands in their '(un)natural state' when protected areas are vested in public ownership?

## **6 Conclusion and recommendations**

In most instances, natural wetlands are functionally important and/or threatened ecosystem types. Through the NPS-FM, NES-FW and the associated WDP, avoidance of significant adverse effects on these wetlands through legal protection is considerably more likely going forward. Given the extent and rate of wetland loss and degradation, we wholeheartedly support this.

However, assigning blanket prohibited status to certain activities affecting 'natural' wetlands is a step too far. This is due to the level of uncertainty about exactly what constitutes a 'natural' wetland, the appropriateness of prohibited status for some activities, from an ecological standpoint in some cases, and the potential for unintended/perverse ecological outcomes.

As a way forward, we suggest that wetland activities that are currently prohibited be classified as non-complying. Alongside the strong suite of supporting objectives and policies already required to be incorporated into Regional and District Plans under the NPS-FM, this would still provide significant protection for wetlands in New Zealand. Non-complying activities are explicitly assessed to ensure effects are minor or less, or that an activity is not contrary to the relevant objective and policy framework. If the objectives and policies adopted are strong and clearly in favour of wetland protection / avoidance of drainage (as required by the NPS-FM), non-complying activities with more than minor adverse effects will not be able to gain consent. Even proposals with minor adverse effects may not be able to pass through the s104 assessment, when faced with the protective policy framework contemplated by the NPS-FM.

This approach would allow the merits of an application to be assessed on a case-by-case basis whilst ensuring that the degree of rigour applied to effects management is appropriately high (and follows the NPS-FM effects management hierarchy). This would ensure that the door is not closed on those projects that can meet the protective objective and policy framework, and deliver quality outcomes.

This also provides ample opportunity for applications to be either notified (and therefore subject to public participation) under s95A of the RMA, or declined under s104D if the effects are more than minor or significant, and/or consistency with objectives and policies is not demonstrated.

In adopting such an approach in conjunction with strong objectives and policies, key policy outcomes could still be achieved including that:

- Demonstrable net gain outcomes for wetland values are required as standard practice. This will ensure that wetland values are protected or enhanced overall.
- Wetland creation or inducement form part of this approach, to ensure that net gain outcomes relate to both wetland biodiversity values and wetland extent.

Alongside this, we consider other avenues could be pursued by the government and local authorities to promote the protection and enhancement of wetlands. These include:

- Increased focus being placed on wetland consent compliance and adaptive management and monitoring. More resources should be dedicated expressly to national oversight.
- Best practice guidelines being developed for assessing wetland consent applications and to highlight effective wetland compliance monitoring and enforcement practices.
- Training be developed for NZ ecologists on this issue to provide confidence in the technical ability of specialists across New Zealand.

Such an approach would better align with the Resource Management Act's purpose, and we consider would deliver better environmental outcomes.

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